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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,766	11/13/2006	Andrew Stuart Overend	066079-5129	8293

9629 7590 11/25/2009

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EXAMINER	
BERMAN, SUSAN W	

ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
11/25/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,766	OVEREND ET AL.	
	Examiner	Art Unit	
	/Susan W. Berman/	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-7,9-11,13-15,17 and 18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-7,9-11,15,17 and 18* is/are rejected.

7)☒ Claim(s) *13-14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments filed 10-05-2009 have been considered and found persuasive.

The rejection of claims as anticipated by Yamada et al is withdrawn because, as pointed out by applicant, applicant's priority document UK Application 0324749.1 has an earlier fining date [10-23-2003] than the filing date of Yamada et al [10-18-2004].

New grounds of rejection are set forth forth herein below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-7, 9-11, 15 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/027162 in view of Shimomura et al (5,686,508).

WO '162 discloses compositions for ink jet inks comprising a pigment, such as carbon black, radiation curable dispersant, mixture of (meth)acrylate monomers and photoinitiators. Mono-, di-, tri- and tetra-functional (meth)acrylate monomer including several of those set forth in instant claim 13, are disclosed on page 15. The reactive diluent can contain from about 1 to about 20 wt % of the multifunctional monomers. See pages 13-16. Ink jet ink viscosity is taught on page 19, lines 17-26, and ink jet printing is taught on page 30. With respect to claim 2, WO

'162 discloses an amino compound in the dispersant in the Dispersant Examples (pages 23-25). WO '162 does not mention the acid value or pH of the pigment employed.

Shimomura et al disclose inks containing various carbon black pigments having a ph of 5 or less (column 3, lines 32-40, and column 4, line 42-57). Dispersants are taught in column 8, lines 36-46 and in column 6, lines 44-62. Amines are taught in column 9, lines 1-24. Shimomura et al teach that the acidic carbon black provides a print density equivalent to or higher than that obtained by using a dye ink. Several carbon black pigments having properties required in the instant claims are set forth in Table 1. Pigment dispersions are taught in Examples 1-5. Properties of the inks obtained are shown in Table 2. Use in ink-jet inks taking advantage of the disclosed properties of the carbon black is taught in column 22, lines 57-65.

It would have been obvious to one skilled in the art at the time of the invention to employ the carbon black having a pH less than 5 disclosed by Shimomura et al as the pigment in the compositions taught by WO '162. WO '162 provides motivation by teaching use of carbon black pigments for the disclosed ink jet inks. Shimomura et al provide motivation by teaching that the disclosed carbon black has improved dispersibility in organic solvents and organic high polymers and by teaching its use in ink-jet inks. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of taking advantage of the improved dispersibility of the acidic carbon black and an expectation of obtaining a desirable print density taught by Shimomura et al in the radiation curable ink jet ink compositions disclosed by WO '162.

Allowable Subject Matter

Claims 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. WO '162 discloses ink compositions wherein the reactive diluent is mainly mono-functional (meth)acrylates and multifunctional (meth)acrylates can be present in amounts from 1-30 wt%.

Conclusion

Hoshida et al (6,994,745, filed 04-05-2002) disclose a pigment dispersing resin which is a copolymer of a polymerizable unsaturated monomer containing a tertiary amino group.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Susan W. Berman/ whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SB
11/19/2009

/Susan W Berman/
Primary Examiner
Art Unit 1796